



GEOTECHNICAL &
ENVIRONMENTAL
SERVICES, INC.

February 4, 2000
Project No. 97664V3

Ms. Brenda Pohlmann
Nevada Division of Environmental Protection
555 E. Washington, Suite 4300
Las Vegas, NV 89101-1049

RE: *Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road bridge.*

PROVIDING

- Geotechnical Engineering
- Construction Materials Testing
- Environmental Site Assessments
- Drilling Services

Dear Ms. Pohlmann:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas wash on January 27, 2000 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 569 micrograms per Liter ($\mu\text{g/L}$). The NEL report is included with this letter, along with Perchlorate Summary Tables for 1999 and 2000.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included or intended in this report. We appreciate this opportunity to provide our services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.

Daniel C. Burns, C.E.M.*
(Expires 10/07/2001)
Project Manager

Gregory P. DeSart, P.E., C.E.M.
C.E.M. (Expires 12/22/2000)
President

* "I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

jlk

Enc: 1999 Perchlorate Summary Table
NEL Analytical Report

Dist: 1 faxed to addressee at 486-2863
1 original mailed to addressee
cc: fax to Jeff Gibson, American Pacific Corporation
cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105
cc: to project file 97664V3

7560 W. Sahara Ave., Suite 101 Las Vegas, NV 89117
(702) 365-1001 • Fax (702) 341-7120
www.gesnevada.com

**Las Vegas Wash at Northshore Road Bridge
1999 Summary of Perchlorate Concentrations**

Date Sampled	Perchlorate (µg/L)
1/15/99	580
1/29/99	670
2/12/99	600
2/25/99	680
3/26/99	670
4/30/99	180
5/27/99	950
6/25/99	700
7/22/99	710
8/26/99	710
9/26/99	820
10/29/99	760
11/29/99	520
12/27/99	560

**Las Vegas Wash at Northshore Road Bridge
2000 Summary of Perchlorate Concentrations**

Date Sampled	Perchlorate (µg/L)
1/27/00	569

NEL LABORATORIES

Reno • Las Vegas
Phoenix • So. CaliforniaLas Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-368-3282

CLIENT: Geotechnical & Env. Serv.
7560 West Sahara Ave. #101
Las Vegas, NV 89117
ATTN: Dan Burns

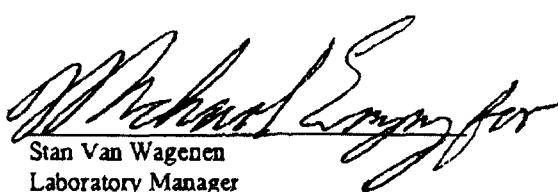
PROJECT NAME: FPP
PROJECT NUMBER: 97664 V3

NEL ORDER ID: L0001282

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 1/27/00.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.


Stan Van Wagenen
Laboratory Manager

2/3/00
Date

CERTIFICATIONS:

	Reno	Las Vegas	S. California
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	Reno	Las Vegas	S. California
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

NEL LABORATORIES

CLIENT: Geotechnical & Env. Serv.
PROJECT ID: FPF
PROJECT #: 97664 V3

CLIENT ID: North Shore Bridge 01/27/2000
DATE SAMPLED: 1/27/00
NEL SAMPLE ID: L0001282-01

TEST: Inorganic Non-Metals
MATRIX: Aqueous

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>D. F.</u>	<u>METHOD</u>	<u>UNITS</u>	<u>ANALYZED</u>
Perchlorate	569	40.	10	CA DHSM - IC	µg/L	1/28/00

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Geotechnical & Env. Serv.
PROJECT ID: FPF
PROJECT #: 97664 V3
TEST: Non-Metals

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 012800-CLO4-BLK

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>D. F.</u>	<u>METHOD</u>	<u>UNITS</u>	<u>ANALYZED</u>
Perchlorate	ND	4	1	CA DHSM - IC	µg/L	1/28/00

D.F. - Dilution Factor

ND - Not Detected

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(702) 657-1010 • FAX: (702) 657-1577 • 1-800-368-3282

CHAIN OF CUSTODY

NEL Work Order: L0001252

Project Name:	GDF	Project Number:	97664 V3
Purchase Order Number:	1563	Sampled By:	R. Coate

Company: GCS Attention: D. Burns

Address:

7560 W. Sahara Ave. #101, Las Vegas, NV 89117

Phone Number:

702-365-1001 Fax Number: 702-341-7120

Billing Address:

Expected Date:

Requested Turnaround: X 5-day ___ 2-day ___ 1-day ___ Other

Time/Date Sampled Customer Sample Identification N.E.L. Identification

01/27/00 NORTH SHORE BRIDGE 01

01/27/2000

of Containers

Matrix (Box #1)

Preservative (Box #2)

Analysis

Perchlorate

Remarks

Custody Seal intact? Y N None Temp. 48
Condition when received: goodBox #1 DW - Drinking Water SD - Solid
WW - Wastewater AD - Aqueous
OL - Organic Liquid A - AirBox #2 A. HCl B. HNO₃ C. H₂SO₄ D. NaOH
E. Ice Only F. Other G. Not Preserved

Relinquished by (Print)	(Signature)	Date/Time	Received by (Print)	(Signature)	Date/Time
Richard Coate	Richard Coate	01/27/00 1040	T. Sanchez		1-27-00 1040
3					

The liability of NEL Laboratories Inc. is limited strictly to the price of sample analysis for those samples received in good condition by NEL. NEL is not responsible for loss, damage, resampling costs and/or qualified data related to samples not received in good condition, including adequate sample volume and number of containers. Customer signature of this C.O.C. constitutes a purchase order for NEL to perform work and constitutes acceptance of all NEL Standard Terms and Conditions. Signatures also constitute acceptance of NEL Standard List Prices for all services ordered here on, except those specified otherwise via an NEL Quotation for Testing Services in effect at the time of sample receipt. NEL turnaround times are measured in regular working days. Samples received at the laboratory after 16:30 will be considered received on the next working day. Commitment of laboratory to the requested turnaround time will be confirmed via Sample Confirmation transmitted to the fax number provided above.